

WHAT IS CLAIMED IS:

1 1. A system for receiving electromagnetic and optical signals comprising:  
2 a first reflecting device for reflecting the electromagnetic and optical signals;  
3 an electromagnetic receiver for receiving the reflected electromagnetic waves,  
4 wherein the electromagnetic receiver comprises a second reflecting device for reflecting the  
5 optical signals; and  
6 an optical receiver for receiving the optical signals reflected from the  
7 electromagnetic receiver.

1 2. The system of claim 1, wherein the first reflecting device comprises a  
2 parabolic dish.

1 3. The system of claim 1, wherein the first reflecting device comprises a  
2 material to reflect the optical signals.

1 4. The system of claim 3, wherein the material comprises a mirror-like  
2 material.

1 5. The system of claim 1, wherein the first reflecting device comprises a  
2 material to reflect the electromagnetic signals.

1 6. The system of claim 5, wherein the material comprises a metallic  
2 material.

1 7. The system of claim 6, wherein the metallic material is polished to  
2 reflect optical signals.

1 8. The system of claim 1, wherein the optical signals comprise infrared  
2 signals.

1 9. The system of claim 1, wherein the electromagnetic signals comprise  
2 radio frequency signals.

1 10. The system of claim 1, wherein the electromagnetic signals comprise  
2 microwave signals.

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1 11. The system of claim 1, wherein the second reflecting device comprises  
2 a material capable of reflecting optical signals.

1 12. The system of claim 12, wherein the material comprises a mirror-like  
2 substance.

1 13. The system of claim 1, wherein the first reflecting device reflects the  
2 electromagnetic and optical rays to a focus area, wherein the focus area includes the  
3 electromagnetic receiver.

1 14. The system of claim 1, further comprising a transmitting system  
2 comprising an optical transmitter.

1 15. The system of claim 1, wherein the electromagnetic receiver is  
2 designed to transmit electromagnetic signals.

1 16. A system for receiving electromagnetic and optical signals comprising:  
2 a receiver designed to receive the electromagnetic signals, wherein the  
3 receiver includes an aperture where the electromagnetic signals are received through;  
4 at least one lens covering at least a portion of the aperture, wherein the lens is  
5 designed to bend the optical signals;  
6 at least one optical receiver designed to receive the bent optical signals; and  
7 an electromagnetic receiver designed to receive the electromagnetic signals  
8 received by the receiver.

1 17. The system of claim 16, wherein the receiver comprises a horn.

1 18. The system of claim 16, wherein the optical signals comprise infrared  
2 signals.

1 19. The system of claim 16, wherein the electromagnetic signals comprise  
2 radio frequency signals.

1 20. The system of claim 16, wherein the electromagnetic signals comprise  
2 microwave signals.

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1 21. The system of claim 16, wherein the lens is designed to allow  
2 electromagnetic signals to pass through the lens.

1 22. The system of claim 16, further comprising a transmitting system  
2 comprising an optical transmitter.

1 23. The system of claim 16, wherein the electromagnetic receiver is  
2 designed to transmit electromagnetic signals.

1 24. A broadband communications system for receiving electromagnetic  
2 and optical signals comprising:

3 a parabolic dish for reflecting the electromagnetic and optical signals to a  
4 focus area, the parabolic dish comprising an aperture;

5 an electromagnetic receiver located in the focus area for receiving the reflected  
6 electromagnetic waves, wherein the electromagnetic receiver comprises a reflecting device  
7 for reflecting the optical signals through the aperture; and

8 an optical receiver for receiving the optical signals reflected through the  
9 aperture from the electromagnetic receiver.

1 25. The system of claim 24, wherein the optical signals comprise infrared  
2 signals.

1 26. The system of claim 24, wherein the electromagnetic signals comprise  
2 radio frequency signals.

1 27. The system of claim 24, wherein the electromagnetic signals comprise  
2 microwave signals.